

304 - 750

Work Order ID 109142

November-11-13 3:23:03 PM

\*109142\*

Page 1

Item ID:	D3953-3	Accept	*N900040100*	Setup	Start	*NS1*	
Revision ID:				Stop		*NS2*	
Item Name:	Gas Spring Stud, Lid						
Start Date:	11/11/13	Start Qty:	30.00	*30*	Cust Item ID:		
Required Date:	11/25/13	Req'd Qty:	30.00	*30*	Customer:		
Reference:							
Approvals:	Process Plan: MLS	Date: 13-11-12	Tooling:	Date:	Run	Start	*NR1*
	QC:	Date:	SPC (Y/N):	Date:	Stop		*NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D3953	C								

100 \*100\* 0.00

Doosan  
Doosan Lathe  
Memo  
Turn as per folio FA852 & DWG  
FOLIO REV: N/A  
DWG REV: C

31 ✓

0.00  
3-11-20

DEBURR

110 QC2- Inspect parts off machine FAI/FAIB 0.00

QC  
Quality Control  
Memo  
0.00

31 ✓

3-11-20

DQA:

Date:



# **WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed:

Date:

## Work Order update only



DQA:

Date:



## WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed:

Date:

Work Order update only 

Work Order: _____			<b>DISPOSITION</b>		<b>AGAINST DEPARTMENT/PROCESS</b>							
			Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>					
			Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>					
			Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>					
			Suspected Unapproved <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>						
Root Cause	Date	Step	Qty	Description of work order update or non-conformance		Initial Chief Eng	Action Description		Sign & Date	Verification	QC Inspector	
Design												
Doc/Data												
Equip/Tooling												
Handling/Pre												
Material												
Operator												
Offset/Setup												
Process												
Supplier												
Training												
Transport												
Unapproved												
FAULT CATEGORY												
Landing Gear				General								
Bending	Bend <input type="checkbox"/>	Folio/Program <input type="checkbox"/>	Outside Dimensions <input type="checkbox"/>	Pressure/Forced <input type="checkbox"/>								
Centre Not Concentric	BOM/Route <input type="checkbox"/>	Grain <input type="checkbox"/>	Over/Under tolerance <input type="checkbox"/>	Set-up <input type="checkbox"/>								
Cracks	Broken/Damage/Defect <input type="checkbox"/>	Hardware <input type="checkbox"/>	Part Incorrect <input type="checkbox"/>	Temperature/Cure <input type="checkbox"/>								
Crimp/Kink/Ripple/Wave	Burrs <input type="checkbox"/>	Inspection Incomplete/Unqualified <input type="checkbox"/>	Part Lost/Missing <input type="checkbox"/>	Weld <input type="checkbox"/>								
Cuffs	Contamination <input type="checkbox"/>	Instructions Incomplete/Unclear <input type="checkbox"/>	Part Moved <input type="checkbox"/>	Wrong Stock Pulled <input type="checkbox"/>								
Crushing	Countersink <input type="checkbox"/>	Misaligned/off center <input type="checkbox"/>	Positioned Wrong <input type="checkbox"/>									
Heat Treat	Cut Too Short <input type="checkbox"/>	Mislabeled <input type="checkbox"/>	Power Loss/Surge <input type="checkbox"/>									
Inspection Strip in Tube	Drawing <input type="checkbox"/>	Misread <input type="checkbox"/>										
Marks/Chatter	Drill Holes <input type="checkbox"/>	Off-set <input type="checkbox"/>										
Turning Sequence	Finish <input type="checkbox"/>	Out of Calibration <input type="checkbox"/>										
Wave/Twist in Tube	Fit/Function <input type="checkbox"/>	Out of Sequence <input type="checkbox"/>										

**Picklist Print**

November-11-13 3:23:09 PM

Page 1 /1

Work Order ID: 109142

**\*109142\***  
**\*D3953-3\***

Parent Item: D3953-3

Parent Item Name: Gas Spring Stud, Lid

Start Date: 11/11/13

Required Date: 11/25/13

Start Qty: 30.00

Required Qty: 30.00

**Comments:** IPP RevA: New issue DD verified by:EC  
per dwg revC DD 10.03.02 verified by:EC

IPP Rev:B as

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M304RO.750		Purchased	No			100	f	56.3730	0.125	4		SA 13-11-20	

**\*M304RO 750\***

304 SS Roundbar .750

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
MAT028	39.939	
116501	3.492	
116623	1.708	
121282	4.89	
122386	5.066	
123721	24.783	42+
MAT029	16.434	
117481	3.434	
118509	12.4	
120124	0.6	

DQA:

Date: \_\_\_\_\_



## WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed:

Date: \_\_\_\_\_

Work Order update only 

Work Order: _____ Part No. _____ NCR No. _____			<b>DISPOSITION</b> Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Suspected Unapproved <input type="checkbox"/>		<b>AGAINST DEPARTMENT/PROCESS</b> Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/> Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/> Water Jet <input type="checkbox"/> Prod. Eng. Coor. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/> Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/>					
Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector	
Design									Q	
Doc/Data										
Equip/Tooling										
Handling/Pre										
Material										
Operator										
Offset/Setup										
Process										
Supplier										
Training										
Transport										
Unapproved										
<b>FAULT CATEGORY</b>										
<b>Landing Gear</b> <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric <input type="checkbox"/> Cracks <input type="checkbox"/> Crimp/Kink/Ripple/Wave <input type="checkbox"/> Cuffs <input type="checkbox"/> Crushing <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Marks/Chatter <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	<b>General</b> <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damage/Defect <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drawing <input type="checkbox"/> Drill Holes <input type="checkbox"/> Finish <input type="checkbox"/> Fit/Function		<input type="checkbox"/> Folio/Program <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete/Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Misaligned/off center <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Off-set <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence		<input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge		<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Set-up <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled			

<b>DART AEROSPACE LTD</b>	<b>Work Order:</b>	<b>109147</b>
<b>Description:</b> Gas Spring Stud, Lid	<b>Part Number:</b>	<b>D3953-3</b>
<b>Inspection Dwg:</b> D3953 <b>Rev:</b> C		<b>Page 1 of 1</b>

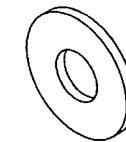
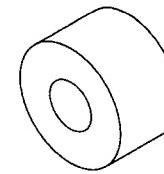
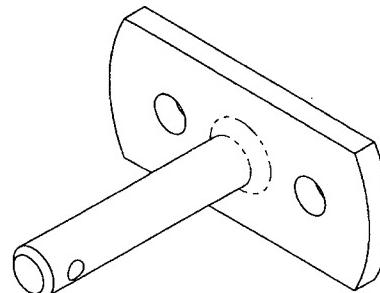
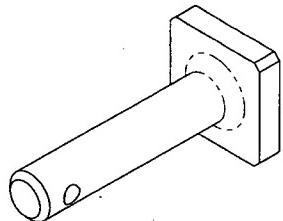
## **FIRST ARTICLE INSPECTION CHECKLIST**

# X First Article      Prototype

Measured by:		Audited by:		Prototype Approval:	N/A
Date:	13~11~19	Date:	13/11/20	Date:	N/A

Rev	Date	Change	Revised by	Approved
A	09.10.22	New Issue	KJ	
B	09.12.14	Dwg Rev updated	KJ	

8 7 6 5 4 3 2 1



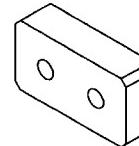
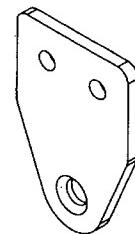
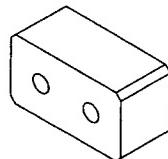
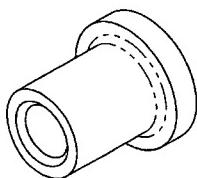
D3953-1 GAS SPRING BRACKET  
(FULL LID)

D3953-3 GAS SPRING STUD, LID

D3953-5 GAS SPRING STUD, BASE

D3953-7 GAS SPRING SPACER

D3953-9 GAS SPRING WASHER



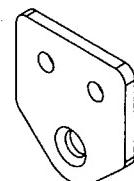
D3953-11 GAS SPRING SPACER

D3953-13 GAS SPRING SPACER  
(FULL LID)

D3953-15 GAS SPRING BRACKET  
(SPLIT LID)

D3953-17 GAS SPRING SPACER  
(SPLIT LID)

D3953-19 GAS SPRING BRACKET  
(SQUARE BASKET)



D3953-21 GAS SPRING BRACKET  
(SQUARE BASKET)

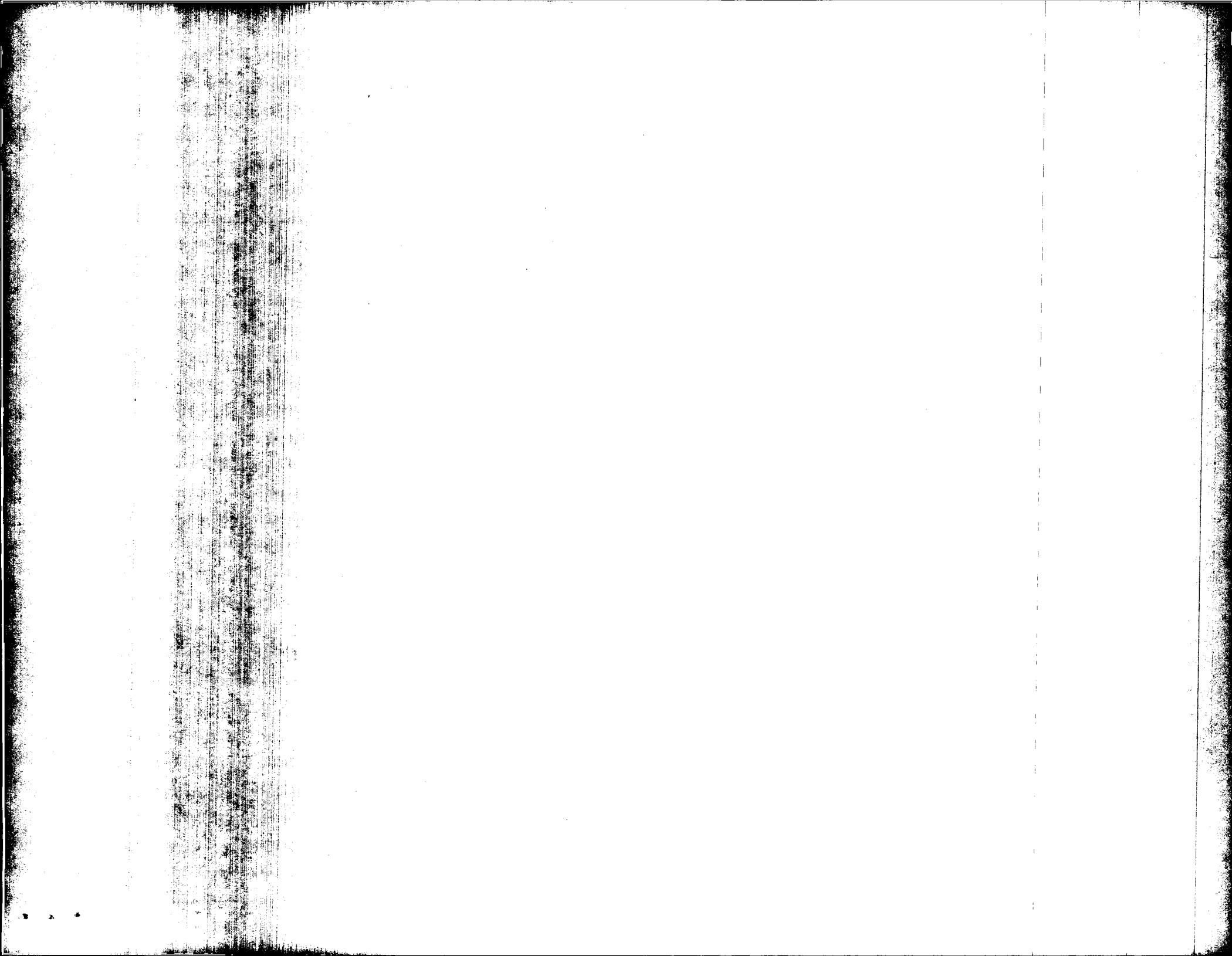
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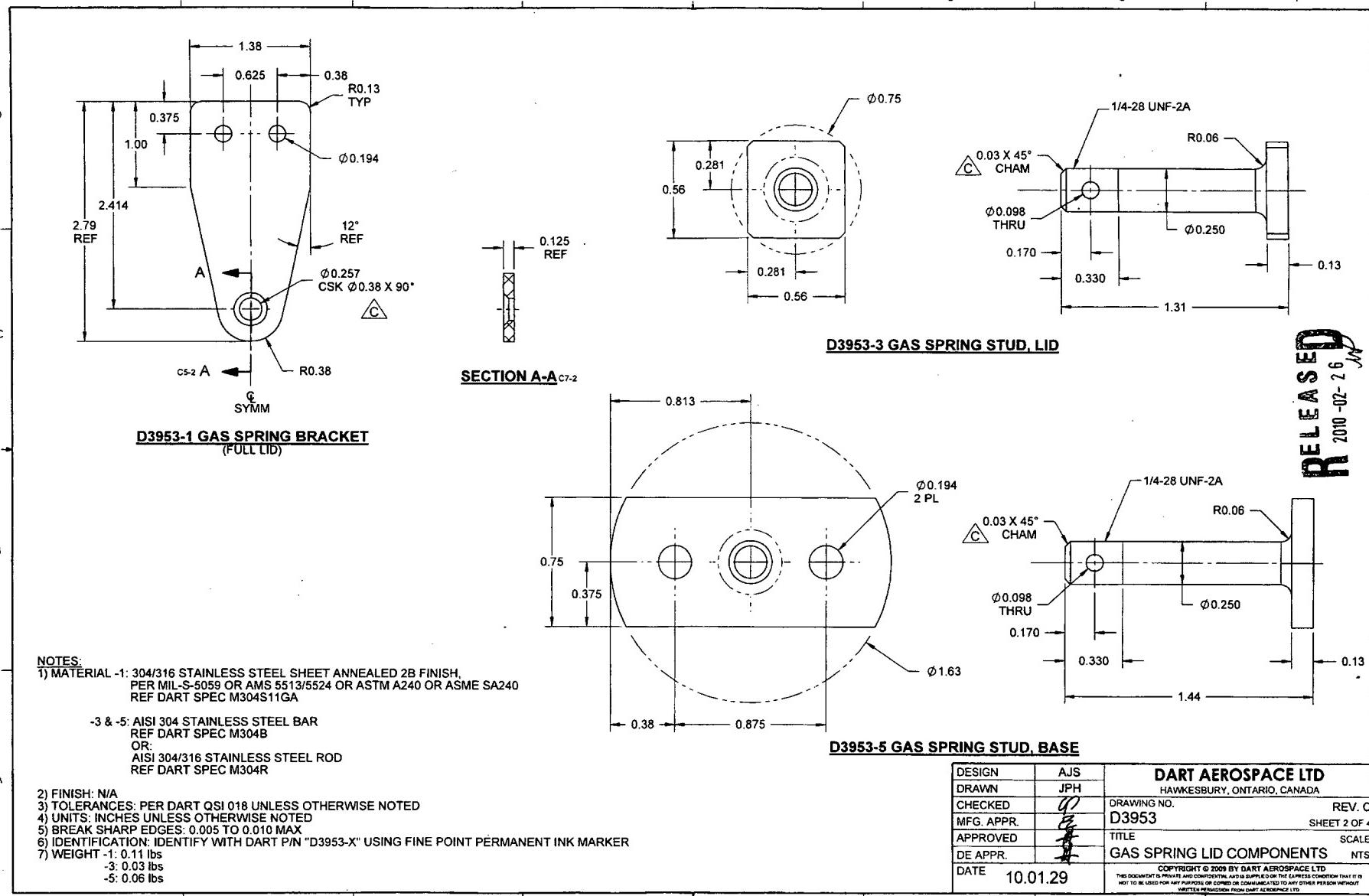
C	PARTS -19 & -21 ADDED (SHT 18-4); CSK CALLOUT WAS CHAM (C6-2, B6-3, C6-4); C SYMM WAS C SYM ABOUT (C7-2, C7-4); SECTION C-C REPOSITIONED TO B2-4 REASON: ADDL PARTS REQD; DRAFTING ERRORS	JPH	10.01.29
B	SHEET 3 ZONE C1, DIM 0.05 MIN WAS 0.13, MULTIPLE DIMENSIONS MINMAX REMOVED TOLERANCE ADDED. REASON: DIFFICULTY INSTALLING COTTER PIN AT NEXT ASSY.	AJS	09.11.11
A	NEWISSUE	AJS	09.07.27
REV.	DESCRIPTION		
DESIGN	AJS	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	JPH		
CHECKED	90	DRAWING NO.	REV. C
MFG. APPR.	3	D3953	SHEET 1 OF 4
APPROVED	AT	TITLE	SCALE
DE APPR.	#	GAS SPRING LID COMPONENTS	NTS
DATE	10.01.29	COPYRIGHT © 2009 BY DART AEROSPACE LTD. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

RELEASED  
R 2010-02-26

8 7 6 5 4 3 2 1

109142 MLJ  
13-11-12

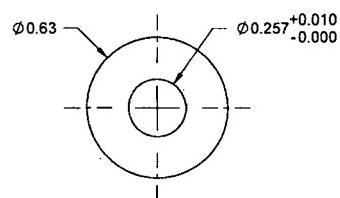




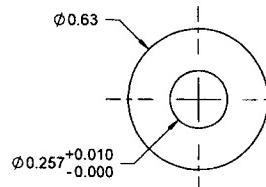
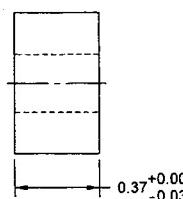
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DRAWN	JPH	HAWKESBURY, ONTARIO, CANADA
CHECKED	PP	DRAWING NO.
MFG. APPR.	BB	REV. C
APPROVED	BB	SHEET 2 OF 4
DE APPR.	BB	TITLE
DATE	10.01.29	SCALE
		GAS SPRING LID COMPONENTS
		NTS

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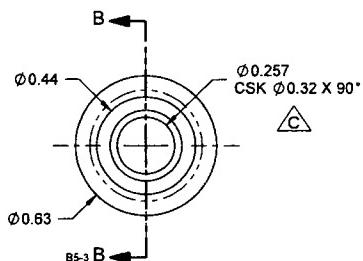
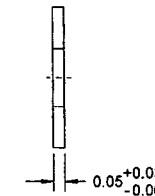
**RELEASED**  
2010-07-26



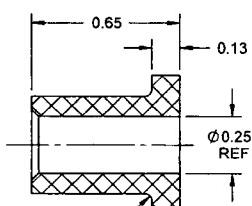
**D3953-7 GAS SPRING SPACER**



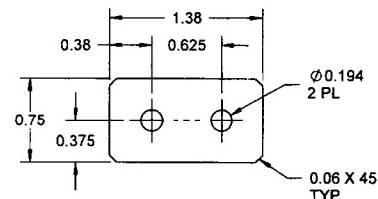
**D3953-9 GAS SPRING WASHER**



**D3953-11 GAS SPRING SPACER**



**SECTION B-B B7-3**



**D3953-13 GAS SPRING SPACER**

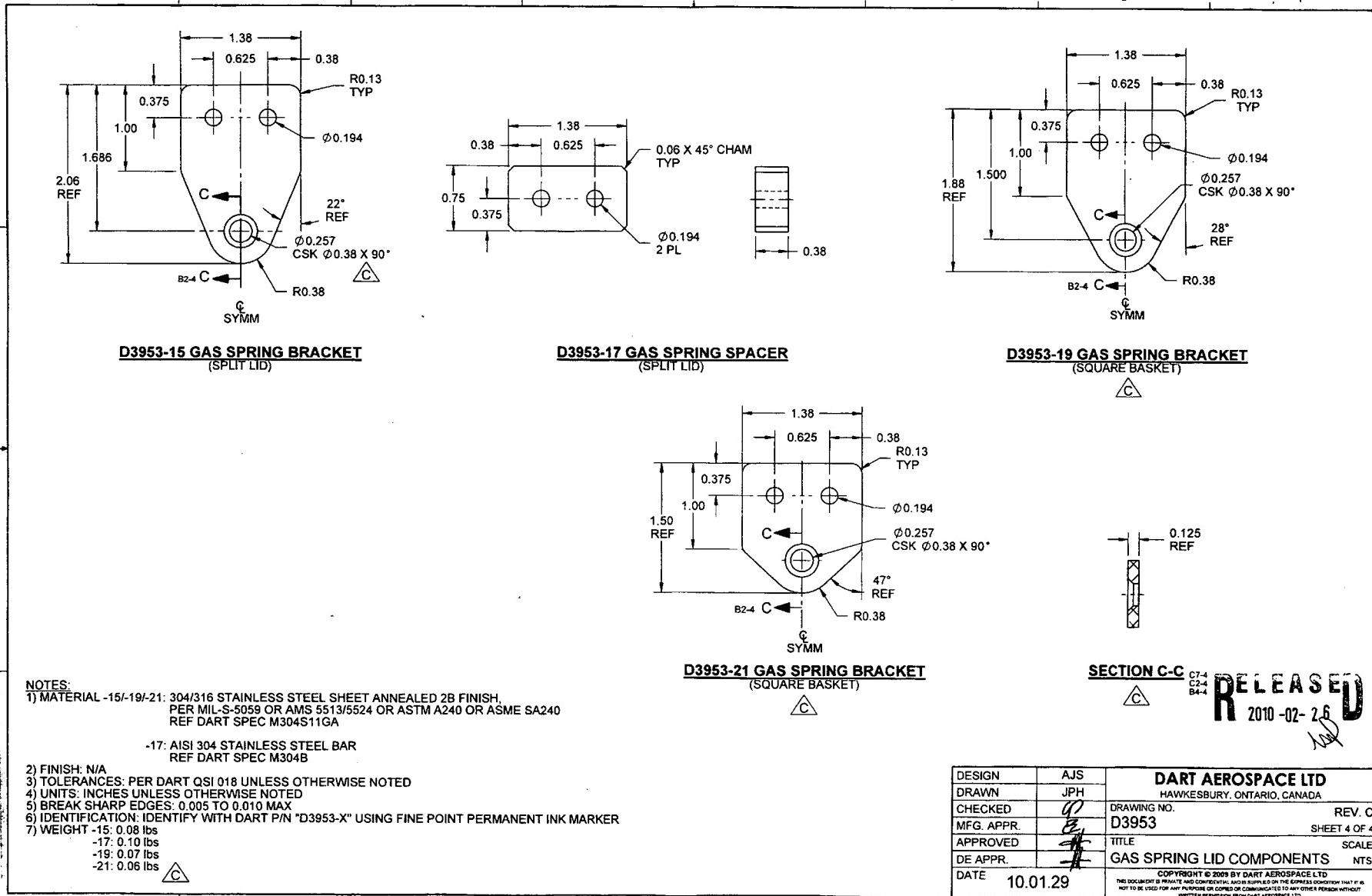
**NOTES:**  
1) MATERIAL -7,-9 & -11: DELRIN II 150E OR ACETRON GP ACETAL, BLACK  
REF DART SPEC M-DELRIN-R

-13: AISI 304 STAINLESS STEEL BAR  
REF DART SPEC M304B

2) FINISH: N/A  
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED  
4) UNITS: INCHES UNLESS OTHERWISE NOTED  
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX  
6) IDENTIFICATION -13 ONLY: IDENTIFY WITH DART P/N "D3953-13" USING FINE POINT PERMANENT INK MARKER  
7) WEIGHT -7-9-11: < 0.01 lbs EACH  
-13: 0.17 lbs

**RELEASED**  
2010-02-26

DESIGN	AJS	<b>DART AEROSPACE LTD</b>
DRAWN	JPH	HAWKESBURY, ONTARIO, CANADA
CHECKED	99	DRAWING NO.
MFG. APPR.	99	REV. C
APPROVED	99	D3953
DE APPR.	99	SHEET 3 OF 4
DATE	10.01.29	TITLE
		GAS SPRING LID COMPONENTS
		SCALE
		NTS
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DESIGN	AJS	DART AEROSPACE LTD
DRAWN	JPH	HAWKESBURY, ONTARIO, CANADA
CHECKED	Q	DRAWING NO.
MFG. APPR.	Z	D3953
APPROVED	S	REV. C
DE APPR.	E	SHEET 4 OF 4
DATE	10.01.29	TITLE
		SCALE
		GAS SPRING LID COMPONENTS
		NTS

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